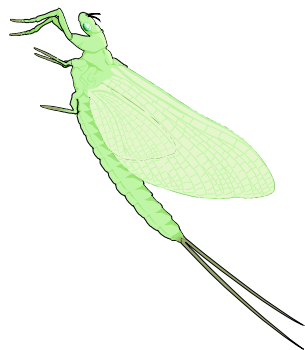
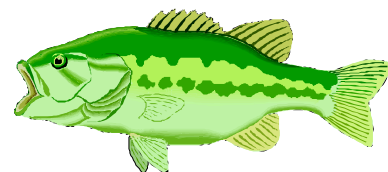




**NJ Department of Environmental Protection
Water Monitoring and Standards**



WATER QUALITY MONITORING NETWORKS 2003



State of New Jersey

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Governor
Bradley M. Campbell
Commissioner**

OCTOBER 2003



WATER QUALITY MONITORING NETWORKS 2003

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October 2003

TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
Freshwater & Biological Monitoring	
Ambient Biological Monitoring (AMNET)	2
Ecoregion Reference Sites	5
Fish Index of Biotic Integrity (IBI)	7
Ambient Surface Water Monitoring Network (ASWMN)	9
Supplemental Ambient Monitoring Network	11
Groundwater Monitoring Network	13
Marine Water Monitoring	
National Shellfish Sanitation Program	15
Coastal Water Quality Network	17
Coastal Phytoplankton Monitoring	19
Toxic Pollutants in Shellfish	22
Other Monitoring Capabilities	
Nonpoint Source Monitoring	23
Confirmatory Sampling for Impaired Waters	24
Sediment Toxicity Testing	26
Algal Biostimulation Testing	28
Alternate Microbial Indicator Monitoring	30
Data Dissemination	31
Additional Information about Water Monitoring and Standards	32
Water Monitoring and Standards Personnel List	33

Introduction

Water Monitoring and Standards (WM&S) is the program, within the NJ Department of Environmental Protection (NJDEP), which is responsible for ambient monitoring of the state's fresh, ground and marine waters. This monitoring is performed in accordance with the objectives of the Federal Clean Water Act which are to "restore and maintain the chemical, physical and biological integrity of the Nation's waters". In order to accomplish this, states are expected to develop, adopt and maintain water quality standards which are used in assessments of the quality of the state's waters. These standards and assessments must be based on sound, up-to-date scientific information, including monitoring data. WM&S oversees the operation of the primary water quality monitoring networks for the State of New Jersey.

The mission of WM&S is the continued development and implementation of appropriate water monitoring programs using innovative approaches for the design, collection, measurement, storage, retrieval, assessment and dissemination of water quality data. The information generated from these water quality monitoring networks is used for multiple purposes including:

- ◆ evaluating water quality status and trends
- ◆ classifying waters, including shellfish water quality
- ◆ assessing and ranking chemical and biological waterbody impairments
- ◆ development of Total Maximum Daily Loads (TMDLs)
- ◆ informing water quality-sensitive land use
- ◆ identifying pollution sources (both point and non-point) and relative impacts
- ◆ designing and implementing watershed management initiatives
- ◆ determining the effectiveness of pollution control programs
- ◆ responding to environmental emergencies and spills

Monitoring strategies employed by WM&S are comprised of multiple water quality assessment techniques including: fish population surveys for the Fish Index of Biotic Integrity (IBI), habitat assessments, in-stream biological monitoring, collection of physical/chemical data on a variety of matrices (surface water, ground water, sediment), identifying pollution sources in the coastal and freshwater environment (discharges, stormwater, marinas), and sediment toxicity testing.

WM&S locates all monitoring stations via the Global Positioning System (GPS), with all locational information being downloaded into NJDEP's Geographic Information System (GIS). All physical/chemical and biological monitoring data collected are stored in the US Environmental Protection Agency's STORET water quality database.

The following pages contain information on each of the networks that are maintained by WM&S. Included for each network is a brief description of the network (including, for appropriate networks, the parameters monitored), a map of the sampling site locations, as well as references for the locations of the monitoring results. Additionally, at the end of the report, information is included regarding additional specialized WM&S monitoring capabilities.